

System Configuration Team (SCT)

Reasonable & Prudent Measure #26

Meeting Notes

October 5, 1998

I. Greetings and Introductions.

The October 5 meeting of the System Configuration Team was held at the Northwest Power Planning Council offices in Portland, Oregon. The meeting was co-chaired by Bill Hevlin of NMFS and Jim Ruff of the Northwest Power Planning Council staff. The meeting was facilitated by Donna Silverberg. The agenda and a list of attendees for the September 30 meeting are attached as Enclosures A and B.

The following is a distillation (not a verbatim transcript) of items discussed at the meeting, together with actions taken on those items. Please note that some enclosures referenced may be too lengthy to routinely include with the meeting notes; copies of all enclosures referred to in the minutes are available upon request from Kathy Ceballos of NMFS at 503/230-5420.

II. Discussion of Overall SCT Vision for Bonneville Dam Improvements.

As you'll recall, said Hevlin, we left the last SCT meeting with the agreement that we would begin to articulate our vision for near-term testing and development at Bonneville Dam at today's meeting, and how higher-priority Bonneville items in the current FY'99 CRFM spreadsheet fit into that vision.

Beginning with Bonneville Powerhouse I in FY'99, Hevlin said, we're preparing for a surface collection test in the year 2000. In FY'99, that preparation work includes Bonneville surface bypass – B1 prototype second year test, currently ranked at 356 on the list (FY'99 cost: \$1.8 million). He said that the Corps has requested that the Bonneville PH1 FGE line-item (currently scored at 200) be moved to a position above the funding cutoff line; they need this item to be funded in FY'99 in order to prepare for the FGE and surface collection tests in 2000. Hevlin added that the cost of this item has been reduced from \$500,000 to \$300,000 in FY'99; this funding level is focused primarily on closeout of 1998 activities – completion of the biological and model study reports, and integration of the 1998 data.

At what point are we going to need to make a decision about surface bypass at Bonneville? asked Bert Bowler of the Idaho Department of Fish and Game. Our first opportunity will be after the summer test results are available in 2000, replied the Corps' Doug Clarke – that will give us two years of test results, 1998 and 2000.

We've been having some internal discussions about our vision for Bonneville, said BPA's John Rowan, and our feeling is that it may make sense not to look at this as a choice between two

paths – surface collection or screens. Given the structural uniqueness of the Bonneville project, and the sheer number of fish that pass it on their way to and from the ocean, it could be that we'll find that a hybrid system – some combination of surface collection and screens – will be the best solution there, Rowan said. I would hate to see us completely foreclose either of those options by forcing a decision either for surface collection or for screens, he said – it could be a hybrid. I agree, said Jim Ruff – we could be looking at a hybrid system, and we could be looking at more testing – after all, it's taken us 20 years to get extended-length screens installed in the basin.

Moving on to Bonneville Powerhouse II, Hevlin said that, due to the fish-to-water efficiency discovered through hydroacoustics and radio telemetry at the PH2 sluiceway, NMFS would like to begin focusing on the PH2 sluiceway as a safe passage route. The main drawback, currently, is the fact that the sluiceway leads directly to the tailrace, where there are a lot of predators, Hevlin said. Our vision at PH2 is to start looking, in 1999, at a safer outfall site and design. One key component of that work is the Bonneville surface bypass high-flow outfall investigation, currently scored at 357, Hevlin said.

Bob Heinith of CRITFC and Bill Maslen of BPA observed that most of the studies showing high levels of predation in the Bonneville PH2 tailrace were done in the early 1990s, prior to the removal of thousands of squawfish through the predator management program. In other words, Maslen said, predation in the B2 tailrace may no longer be as much of a problem as it once was. As we pursue outfall reconfiguration, he said, we also need to consider the possibility that the squawfish and northern pike management efforts may offer a cheaper means to the same end.

In response to a question from Ron Boyce, Tom Poe said it is difficult, in looking at recent survival data, to say what direct impact squawfish removal has had on tailrace survival at Bonneville. There is a little radio-tag data from a recent ODFW study, which indicated that radio-tagged squawfish released in the Bonneville forebay tended to move down into the tailrace, Poe said; their main point of congregation was the B1 outfall site.

The group spent a few minutes discussing the various conceptual options available at Bonneville PH2; Hevlin eventually summarized the outcome of this debate by saying that there appear to be three main options open for FY'99. The first is to proceed only with the high-flow outfall investigation, he said; the second is to proceed with the high-flow outfall investigation and the surface bypass B2 corner collector prototype; another alternative discussed was the possibility of funding the corner collector prototype, but reducing or eliminating funding for the Bonneville PH1 surface bypass work in FY'99.

From the NMFS perspective, we haven't seen any evidence that says the Powerhouse 2 tailrace is any safer now than it was in the early '90s, Hevlin said -- that means it's going to be hard for us to agree to a conscious decision to put a large number of ESA-listed fish into that tailrace environment. While much of this data is eight or nine years old, the preponderance of evidence suggests that that environment is not safe. If we do additional survival studies to update that data, we're going to be putting ESA-listed fish at risk.

After a few minutes of additional discussion, Witt Anderson of the Corps said it sounds to him as though there is general agreement that the high-flow outfall investigation should be funded in FY'99; however, there is a difference of opinion about the importance of the B2 corner collector test. No disagreements were raised to this characterization. He suggested that the group move

on, to see where the corner collector line-item fits in with the rest of the priorities on the FY'99 list.

Moving on to the Bonneville PH1 DSM line-item, Hevlin said the SCT had discussed the possibility of deferring this project to FY'00 at its last meeting; however, the Corps insisted that a minimum of \$1.5 million in FY'99 funding is needed to keep alive the option of having this project operational by 2002. Rod Woodin of WDFW expressed concern about this line-item, saying that it makes more sense to him to defer this project completely in FY'99, given other budgetary priorities. Hevlin and Boyce disagreed, on the basis that, particularly during the spring, the PH1 outfall is used by large numbers of juvenile migrants, and the current outfall location is very poor. NMFS is very reluctant to defer this work any further, Hevlin said. I tend to agree, said Ruff – the ISAB has said that relocating the outfalls at Bonneville is a very high priority, based on tailrace predation data. Bear in mind that all we're talking about for FY'99 is design work, he said – we're keeping our options open, but we won't make a decision on implementation of this item for another year or more.

Marv Yoshinaka said the Fish and Wildlife Service is also in favor of keeping the year-2002 implementation option open for this project; Steve Pettit said IDFG also supports keeping this option open, although if the FY'99 budget is extremely tight, other items are probably more important. Anderson said the Corps echoes IDFG's view on this item. Woodin and Heinith said WDFW and CRITFC recommend zero funding for this item in FY'99; in my mind, this is certainly a lower priority than extended-length screen implementation at John Day, Woodin said. Ruff added that the Council is recommending that the Bonneville minimum gap runner test, which is currently scored at 316, be funded in FY'99. Given the number of fish passing Powerhouse 1, and the hypothetical improvement in turbine passage survival offered by this technology, we feel that is very important work in 1999, he said.

Anderson added that the Corps has learned that savings and slippage will be restored in the FY'99 budget, which means the amount of the CRFM budget will truly be \$60 million. In addition, he said the Corps has made arrangements to make its system payback in FY'00, rather than FY'99 – that means we have an additional \$4 million to work with this year, he said. That puts the funding cutoff line at score 247, which is currently System – Fish Ladder Temperature Control, Silverberg observed.

III. Continuation of Process to Priority Rank FY'99 CRFM Program Activities.

The group spent the remainder of the meeting debating the relative priorities within the FY'99 CRFM budget. Items that received substantial discussion, or whose priority or funding level was changed as a result of these discussions, included the following:

John Day Extended-Length Screens. Hevlin proposed that the score for this item be changed to make it the lowest-priority funded item in the FY'99 list. I want to be clear that what we're supporting is testing, not implementation, he said – it's the redesign of the three prototype screens, plus biological testing next spring, to finish this phase of screen development so that we can compare those results to other options, such as 24-hour spill at John Day. The Corps noted that the FY'99 cost for this item has increased from \$4.3 million to \$4.55 million, to cover additional design work requested by NMFS' Steve Rainey.

Ruff said this project does not fall above the \$60 million funding line for the Council; the only way the Council would support funding for this item in FY'99 is if we were to receive closer to \$95 million, he said. The Council's position is based on the ISAB's recommendation that surface spill, and research toward deploying a surface flow bypass system, be pursued at John Day. In addition, Ruff said, we've already spent more than \$10 million on extended-length screen development at John Day, but only about half that amount on the surface spill and surface bypass investigations at that project. The Council would like to see both the John Day surface bypass spillway work and the spillway weir test funded in FY'99, he said. Pettit said IDFG agrees with the Council's position on this issue; Heinith said CRITFC does as well. In response to a question from Anderson, Boyce said Oregon's Power Planning Council members support John Day extended-length screens; Woodin said he isn't sure what the Washington Council members' position is, but said WDFW does not support funding for John Day e-screens in FY'99.

It sounds as though this issue may need to be elevated to the IT, Silverberg observed. If so, said Hevlin, I would like to see the SCT reach as much agreement as possible on the items that would be prioritized above John Day e-screens. Once we get our priorities set down to about \$56 million, Hevlin said, then we can tell the IT that the remaining \$4 million will either be used for extended-length screens at John Day, or for another set of projects. In other words, we agree on a set of priorities down to \$56 million, and after that, there are two alternative roads we can take -- one with John Day screens, the other without.

In response to a question from Ruff, Anderson said the Corps would insert the John Day e-screens line-item somewhere in the \$58 million funding range, adding that, from the COE perspective, additional funding for gas abatement, turbine survival and improvements at Bonneville would all be higher priorities. In other words, if we do have \$64 million to work with, the John Day screens would be funded, but they would be one of the last priorities on the funded list, Anderson said. In response to another question, Maslen said BPA agrees with the Council's position on this issue.

The group spent a few minutes developing the revised list of priorities discussed above; the changes include:

System – Payback: removed from list; payback to take place in FY'00. LGR – Surface Bypass (Critical): rank unchanged; funding increased from \$1.25 million to \$1.4 million.

BON – Surface Bypass – B1 Prototype Second Year Test*: funding reduced from \$2.3 million to \$1.8 million.

JDA – Surface Bypass – Spillway Weir Test*: score reduced from 340 to 200.

SYS – Adult Passage (LCO) Placeholder*: score reduced from 320 to 210; funding reduced from \$1.6 million to \$1.2 million.

LCO – Feasibility: score reduced from 290 to 200.

SYS – Auxiliary Water – LSN: score increased from 285 to 324; funding increased from \$100,000 to \$185,000.

SYS – Fish Ladder Temperature Control: score increased from 247 to 317.

JDA – Extended Screens: score unchanged; funding increased from \$4.3 million to \$4.55 million.

It should be noted that not all of these changes were unanimously agreed to, an asterisk (*)

denotes scores or funding levels to which one or more parties within SCT objected.

The discussion then turned to a separate list of priorities, developed by the Council, CRITFC, IDFG and BPA. The basic difference between the two lists is that, on the latter spreadsheet, John Day extended screens would receive no funding in FY'99; that \$4.55 million would be used to provide additional funding for the gas abatement program, for Lower Columbia adult passage improvements and for the Bonneville minimum-gap runner test, and to ensure that the John Day surface bypass spillway weir test, Bonneville PH1 FGE, real-time tri-level thermograph temperature monitoring and JDA Ringold Hatchery relocation study line-items receive funding in FY'99.

The remainder of the meeting was devoted to integrating these two lists of project priorities, resulting in the following consolidated list (changes in score or funding level are noted in bold):

Ranking	Equivalent Score	Cost (\$ million)	Cumulative Cost
JDA Drawdown Study (S)	600	3.30	3.30
SYS – LSN Feasibility Study (S)	600	4.250	7.550
IHB Flow Deflectors (I)*	600	3.80	11.350
BON PH2 DSM (I)*	600	21.90	33.250
JDA – JBS Monitoring/O&M Safety (S)*	600	1.10	34.350
LGR Surface Bypass (Critical) (S)	600	1.90	36.250
SYS – Separator Evaluation Mothball (S)*	599	1.20	37.450
SYS – LGR Model*	599	0.10	37.550
JDA – 24-Hour Spill Tests (S)	451	1.90	39.450
TDA – Spillway/Sluiceway Survival (S)	435	2.0	41.450
TDA Surface Bypass Evaluation (S)	435	1.650	43.10
BON PH1 DSM Deferred (I)*	407	3.50	46.60
SYS – Adult PIT (S)	400	0.150	46.750
SYS – B2 Fish Unit Debris Study (I)	390	0.20	46.950
MCN Extended Screens (Critical) (I)*	386	3.450	50.40
BON Adult Fallback (S)	386	0.30	50.70
LGR Extended Screens (I)*	369	0.950	51.650
LGS Extended Screens (I)*	364	1.2	52.850
SYS – Turbine Passage/CAM Optimization (S)	360	0.250	53.10
BON Surface Bypass High-Flow Outfall Investigation (S)	357	1.50	54.60
BON Surface Bypass B1 Prototype 2nd Year Test (S)	356	3.30	57.90
TDA Emergency Aux. Water/Outfall Relocation (I)	355	0.50	58.40
MCN - IHB Adult Fallback (S)	352	0.10	58.50
SYS – Gas Fastrack (S)*	348	3.50	62.00
SYS – Gas Abatement * Pending ISAB Report (S)	344	1.50	63.50
JDA Surface Bypass – Modified Spillway (S)	332	0.140	63.640
SYS – B2 AWS (S)	328	0.20	63.840
SYS – Aux. Water (Lower Snake R.) (S)	324	0.185	64.025
SYS – Fish Ladder Temperature Control (S)	317	0.060	64.085
SYS – Turbine Passage/BON MGR Test (S)	316	1.40	65.485
JDA – 4-Unit Skeleton Bay Study (S)	312	0.20	65.685

BON PH1 FGE 304 0.30 65.985
BON Flat Plate PIT (S) 284 0.050 66.035
JDA Ringold (S) 237 0.20 66.235

JDA Extended Screens (S) 215 2.60 68.835
SYS – Adult Passage (Lower Col.) Placeholder (I) 210 1.20 70.035
SYS – Separator Evaluation Testing (S) 200 0.750 70.785
Lower Col. Feasibility (S) 200 0.150 70.935
JDA Surface Bypass -- Spillway Weir Test (S) 200 0.50 71.435
SYS – Turbine Passage – MCN (S) 200 1.60 73.035
LGR Surface Bypass Testing Additive Devices 200 1.730 74.765
JDA JBS Monitoring/Juvenile Fish Improvements (S) 200 0.30 75.065
JDA JBS Monitoring/Adult Fish Improvements (S) 200 0.30 75.365
LGR Surface Bypass (Testing M&E) 200 2.90 78.265
BON Surface Bypass – Behavioral Tests (S) 200 1.50 79.765
TDA Surface Bypass Prototype Design 200 0.90 80.665
BON PH2 FGE 200 1.20 81.865
SYS – Spill Effectiveness/
Optimization (S) 200 1.00 82.865
MCN Extended Screens – Non-Critical (I) 200 1.30 84.165

JDA – Navigation (I) 0 0.220 84.385
BON Surface Bypass – B2 Corner Collector Tests (S) 0 1.50 85.885
BON Surface Bypass – B2 Corner Collector Prototype (S) 0 1.50 87.385
BON Surface Bypass – B1 Phase 2 B1 Prototype Development (S) 0 1.250 88.635
BON Surface Bypass – Guidance Curtain Investigation (S) 0 1.0 89.635
BON Surface Dewatering 0 0.00 89.635
BON PH2 Gatewell Cleaning (S) 0 0.750 90.385
SYS – Acoustic (S) 0 1.550 91.935
SYS – Flume JDA (S) 0 2.30 94.235
SYS – Spill Survival (S) 0 0.0 94.235
LGR JBS (I) 0 0.40 94.635
MCN Fish Ladder Exits Modifications (I) 0 0.350 94.985
JDA Flow Deflectors (1 & 20) (I) 0 0.250 95.235
IHB Flow Deflectors Adult Evaluation (I) 0 0.20 95.435

Heinith said that, for the record, CRITFC does not agree with the asterisked items on this list, although he has no plans at this point to raise these issues to the IT.

III. Next SCT Meeting Date and Agenda Items.

The SCT agreed that their next meeting will be a two-day work session, to finalize the list of FY'99 CRFM prioritizations; the meetings will be held Wednesday, October 21 and Thursday, October 22, at NMFS' Portland offices. Meeting notes prepared by Jeff Kuechle, BPA

contractor.